SPECIFICATION AMENDMENTS

IN THE SPECIFICATION

Please **amend** the paragraph beginning at page 24, line 3 and ending at page 24, line 4 with the following rewritten paragraph:

~~FIGURE 3A~~FIGURE 3 is a diagram showing the system flow of a specific embodiment shown in FIGURE 1A;

Please **delete** the paragraph beginning at page 24, line 6 and ending at page 24, line 6.

Please **amend** the paragraph beginning at page 28, line 29 and ending at page 29, line 21 with the following rewritten paragraph:

FIGURE 1A is a schematic of the physical layout of various components of a specific embodiment, including mammal 100, such as a human, hemofilter 102, blood pump 104, first ultrafiltrate pump 106a, second ultrafiltrate pump 106b, adsorptive device 108 having one or more chambers containing adsorbent material of one or more types, three-way stop cock or first three-way joint 110, second three-way joint 125, and associated tubing. FIGURE 1B is similar to FIGURE 1A, except that single ultrafiltrate pump 106 is used in lieu of first ultrafiltrate pump 106a and second ultrafiltrate pump 106b. Both FIGURES 1A and 1B position three-way stop cock or first three-way joint 110 in such a manner that it divides ultrafiltrate stream downstream from adsorptive device 108. FIGURE 2 is an alternate schematic of the physical layout of various components of a specific embodiment shown in FIGURES 1A and 1B, except that three-way stop cock or first three-way joint 210 divides the ultrafiltrate stream before adsorptive device 208. ~~FIGURES 3A and 3B are diagrams~~FIGURE 3 is a diagram showing the system flow of a specific embodiment shown in ~~FIGURES 1A and 1B, respectively~~FIGURE 1A. FIGURE 4 is a diagram showing the system flow of a specific embodiment shown in FIGURE 2.

Please **amend** the paragraph beginning at page 29, line 22 and ending at page 30, line 18 with the following rewritten paragraph:

Steps 301 and 302 (in ~~FIGURES 3A and 3B~~FIGURE 3) and steps 401 and 402 (in FIGURE 4) show blood being continuously withdrawn from mammal 100 (in FIGURES 1A and 1B) and mammal 200 (in FIGURE 2), such as human and directed to blood pump 104 (in FIGURES 1A and 1B) and blood pump 204 (in FIGURE 2), such as a human via first tubing 101 (in FIGURES 1A and 1B) and first tubing 201 (in FIGURE 2). Specifically, step 303 (in ~~FIGURES 3A and 3B~~FIGURE 3) and step 403 (in FIGURE 4) show the continuous pumping of blood by blood pump 104 into hemofilter 102 via second tubing 103 (in FIGURES 1A and 1B) and by blood pump 204 into hemofilter 202 via second tubing 203 (in FIGURE 2). Mammal 100 (in FIGURES 1A and 1B) and mammal 200 (in FIGURE 2), such as a human, may have a major blood vessel cannulated allowing for the continuous withdrawal of blood by blood pump 104 (in FIGURES 1A and 1B) and blood pump 204 (in FIGURE 2). As shown in steps 304 and 306 (in ~~FIGURES 3A and 3B~~FIGURE 3) and steps 404 and 406 (in FIGURE 4), hemofilter 102 ultra-filtrates blood extracted from mammal 100, such as a human (in FIGURES 1A and 1B) and hemofilter 202 ultra-filtrates blood extracted from mammal 200, such as a human (in FIGURE 2). And, step 305 (in ~~FIGURES 3A and 3B~~FIGURE 3) and step 405 (in FIGURE 4) returns blood filtered by hemofilter 102 to mammal 100 via third tubing 105 and fourth tubing 107 in FIGURES 1A and 1B and by hemofilter 202 to mammal 200 via third tubing 205 and fourth tubing 207 in FIGURE 2.

Please **amend** the paragraph beginning at page 31, line 19 and ending at page 32, line 10 with the following rewritten paragraph:

As shown in step 304 in ~~FIGURES 3A and 3B~~FIGURE 3, hemofilter membrane 109 (in FIGURES 1A and 1B) sieves a fraction of plasma water, electrolytes, blood peptides and proteins with a molecular size smaller than the pore size of the membrane to form ultrafiltrate stream 111 (in FIGURES 1A and 1B), which is directed to adsorptive device 108 (in FIGURES 1A and 1B), which has one

or more chambers containing adsorbent material of one or more types, via fifth tubing 112 (in FIGURES 1A and 1B). As shown in step 307 in ~~FIGURES 3A and 3B~~FIGURE 3, adsorptive device 108 is perfused by ultrafiltrate stream 111. Similarly, as shown in step 404 in FIGURE 4, hemofilter membrane 209 (in FIGURE 2) sieves a fraction of plasma water, electrolytes, blood peptides and proteins with a molecular size smaller than the pore size of the membrane to form ultrafiltrate stream 211 (in FIGURE 2), which is directed to adsorptive device 208 (in FIGURE 2), which has one or more chambers containing adsorbent material of one or more types, via fifth tubing 212, and sixth tubing 215 (in FIGURE 2). As shown in step 407 in FIGURE 4, adsorptive device 208 is perfused by ultrafiltrate stream 211.

Please **amend** the paragraph beginning at page 32, line 11 and ending at page 32, line 18 with the following rewritten paragraph:

As shown in steps 308 in ~~FIGURES 3A and 3B~~FIGURE 3, ultrafiltrate stream 115 (in FIGURES 1A and 1B) is divided at three-way stop cock or first three-way joint 110 (in FIGURES 1A and 1B), after adsorptive device 108 in FIGURES 1A and 1B. As shown by step 408 in FIGURE 4, ultrafiltrate stream 211 (in FIGURE 2) is divided at three-way stop cock or first three-way joint 210 (in FIGURE 2), before adsorptive device 208 in FIGURE 2.

Please **amend** the paragraph beginning at page 38, line 17 and ending at page 39, line 12 with the following rewritten paragraph:

Specifically, with respect to the tubing in FIGURE 1A, first tubing 101 transfers blood from mammal 100, such as a human to blood pump 104; second tubing 103 transfers blood from blood pump 104 to hemofilter 102; third tubing 105 transfers the filtered blood filtered by hemofilter 102 to second three-way joint 125; fourth tubing 107 transfers the filtered blood along with the post adsorption ultrafiltrate to mammal 100, such as a human; fifth tubing 112 transfers the ultrafiltrate to adsorptive device 108; sixth tubing 123 transfers the post adsorption

ultrafiltrate to three-way stop cock or second three-way joint 110; seventh tubing 131 transfers post adsorption ultrafiltrate to first ultrafiltrate pump 106a; eighth tubing 129 transfers post adsorption ultrafiltrate from first ultrafiltrate pump 106a to second three-way joint 125 joining fourth tubing 107 which transfers filtered blood along with the post adsorption ultrafiltrate to the mammal; ninth tubing 127 transfers post adsorption ultrafiltrate to second ultrafiltrate pump 106b; and tenth tubing 121 transfers post adsorption ultrafiltrate from second ultra filtrate pump 106b to waste reservoir 119. First ultrafiltrate pump 106a and associated tubing implement steps 311 and 312 in ~~FIGURE 3A~~FIGURE 3; second ultrafiltrate pump 106b, waste reservoir 119, and associated tubing implement steps 309 and 310 in ~~FIGURE 3A~~FIGURE 3.

Please **amend** the paragraph beginning at page 39, line 13 and ending at page 40, line 9 with the following rewritten paragraph:

With respect to the tubing in FIGURE 1B, first tubing 101 transfers blood from mammal 100, such as a human, to blood pump 104; second tubing 103 transfers blood from blood pump 104 to hemofilter 102; third tubing 105 transfers the filtered blood filtered by hemofilter 102 to second three-way joint 125; fourth tubing 107 transfers the filtered blood along with the post adsorption ultrafiltrate to mammal 100, such as a human; fifth tubing 112 transfers the ultrafiltrate to adsorptive device 108; sixth tubing 123 transfers the post adsorption ultrafiltrate or ultrafiltrate stream 115 to single ultrafiltrate pump 106; seventh tubing 127 transfers post adsorption ultrafiltrate from ultrafiltrate pump 106 to three-way stop cock or first three-way joint 110; eighth tubing 129 transfers post adsorption ultrafiltrate from three-way stop cock or first three-way joint 110 to second three-way joint 125 joining fourth tubing 107 which transfers filtered blood along with the post adsorption ultrafiltrate to mammal 100, such as a human; and ninth tubing 121 transfers post adsorption ultrafiltrate from three-way stop cock or first three-way joint 110 to waste reservoir 119. Single ultrafiltrate pump 106 and associated tubing implement step 351 in ~~FIGURE 3B~~FIGURE 3; waste reservoir 119 and associated tubing implement step 310 in

~~FIGURE 3B~~FIGURE 3. Second three-way joint 125 and associated tubing implement step 312 in ~~FIGURE 3B~~FIGURE 3.